

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A routing control system for use in a network having a plurality of nodes, said nodes including at least one master node and at least one slave node, said routing control system comprising:

a spanning tree producing portion provided in said master node which produces a spanning tree of said network based on connection information of said network and which delivers said spanning tree to each slave node whenever said connection information is received;

a memorizing portion provided in each of said nodes which memorizes said spanning tree delivered from said spanning tree producing portion as a routing table; and

a health check portion provided in each of said nodes which sends said connection information to said spanning tree producing portion when a topology change of said network is detected.

2. (original): A routing control system as claimed in Claim 1, wherein said nodes are base stations each of which is connectable to a single computer by radio.

3. (original): A routing control system as claimed in Claim 1, wherein said network can be represented by a simple and undirected graph of a graph theory.

4. (previously presented): A routing control system as claimed in Claim 1, wherein said spanning tree producing portion uses a Dijkstra algorithm to make said spanning tree.

5. (original): A routing control system as claimed in Claim 1, wherein said routing table includes a node number column for said nodes, a port number column for respective nodes, an IP address column for adjacent nodes, an IP address column for respective nodes, a cost column and a connection/disconnection information column.

6. (previously presented): A routing control system as claimed in Claim 1, wherein said health check portion detects fault between the node thereof and an adjacent node directly connected to the node thereof and refers to said routing table memorized in said memorizing portion of the node thereof to detect said topology change of said network.

7. (previously presented): A routing control system as claimed in Claim 6, wherein said health check portion of any slave node transmits a message signal to said health check portion of said master node when the fault is detected;

wherein said health check portion of said master node broadcasts a request signal on said network when said message signal is received; and

wherein said health check portion of each slave node sends said connection information to said spanning tree producing portion in response to said request signal.

8. (previously presented): A routing control system as claimed in Claim 1, wherein said health check portion detects that an additional node is directly connected to the node thereof and refers to said routing table memorized in said memorizing portion of the node thereof to detect said topology change of said network.

9. (previously presented): A routing control system as claimed in Claim 8, wherein said health check portion of any slave node transmits a message signal to said health check portion of said master node when the additional node is detected;

wherein said health check portion of said master node broadcasts a request signal on said network when said message signal is received; and

wherein said health check portion of each slave node sends said connection information to said spanning tree producing portion in response to said request signal.

10. (previously presented): A routing control system as claimed in Claim 9, wherein said health check portion of each slave node comprises a plurality of ports directly connected to adjacent nodes; and

wherein said health check portion of each slave node receives said request signal at one of ports and transmits it from the remaining ports to said adjacent nodes.

11. (previously presented): A routing control system as claimed in Claim 10, wherein said request signal includes an ID number; and

wherein said health check portion refers to said ID number and discards said request signal when said health check portion has already received a request signal including an identical ID number.

12. (original): A routing control system as claimed in Claim 9, wherein said health check portion memorizes a port number of said port receiving said request signal to produce said connection information.

13. (original): A routing control system as claimed in Claim 1, wherein said health check portion compares said routing table of the node thereof with that of an adjacent node directly connected to the node thereof to put said routing table into a newer state.

14. (previously presented): A routing controller for use in a node of a network comprising:

a spanning tree producing portion which produces a spanning tree of said network based on connection information of said network and which delivers said spanning tree to each node of said network whenever said connection information is received;

a memorizing portion connected to said spanning tree producing portion which memorizes said spanning tree as a routing table; and

a health check portion connected to said spanning tree producing portion which supplies said connection information of said network when a topology change of said network is detected.

15. (original): A routing controller as claimed in Claim 14, wherein said node is a base station connectable to a single computer by radio.

16. (original): A routing controller as claimed in Claim 14, wherein said network can be represented by a simple and undirected graph of a graph theory.

17. (previously presented): A routing controller as claimed in Claim 14, wherein said spanning tree producing portion uses a Dijkstra algorithm to make said spanning tree.

18. (previously presented): A method of controlling a routing table used in a network having a plurality of nodes, said nodes including at least one master node and at least one slave node, comprising:

producing, at said master node, a spanning tree of said network based on connection information of said network and which delivers said spanning tree to each slave node whenever said connection information is received;

memorizing, at each of said nodes, said spanning tree delivered from said spanning tree producing portion as a routing table; and

sending, from a health check portion of any one of nodes, said connection information to said spanning tree producing portion when a topology change of said network is detected.

19. (previously presented): A method as claimed in Claim 18, wherein said method further comprising:

comparing, by said health check portion, said routing table of the node thereof, with that of an adjacent node directly connected to the node thereof to put said routing table into a newer state.

20. (new): A routing control system as claimed in Claim 1, wherein said spanning tree comprises an interconnection of all nodes in the network.